

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
 690 Walnut Ave.St. 150  
 Vallejo, CA 94592-1133  
 (707) 649-5453  
 (707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-020637**Date Inspected:** 19-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Huang Min and Lil Jia**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** BAY 2, 6, 7, 8 OBG**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Robert A.DeArmond was present during the time noted above and conducted observations relative to the work being performed.

OBG BAY 2

Magnetic Particle Testing (MT)

This QA inspector performed MT and VT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel, by the lot method testing procedure. This QA Inspector generated an MT report for this date. All components were as listed on NWIT notification no. 07412. The member(s) is/are identified as OBG Vertical Shear Plates. The weld designations reviewed are as follows:

SA3444-001-001

SA3449-001-001

SA3442-001-001

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

### Magnetic Particle Testing (MT)

This QA inspector performed MT and VT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel, by the lot method testing procedure. This QA Inspector generated an MT report for this date. All components were as listed on NWIT notification no. 07415. The member(s) is/are identified as OBG Floor Beams. The weld designations reviewed are as follows:

FB3317-001-011

FB3317-001-012

### OBG BAY 8

This QA Inspector observed the following work in progress:

FCAW welding of fillet weld joint(s) located on OBG Bike Paths components identified as BK004A3-062 weld number(s) 025 and 026. Welder is identified as welder no. 040736. The welding variables recorded by ZPMC QC identified as Mr. Liu Fa Wen appeared to comply with applicable WPS(s) WPS-B-T-2132-3.

### OBG BAY 7

This QA Inspector observed the following work in progress

FCAW welding of partial joint penetration weld joint(s) located on Barrier Rails components identified as W2-SB9-069 weld number(s) 095, 099, 113, and 115. Welder is identified as welder no. 205386. The welding variables recorded by ZPMC QC identified as Mr. Shen Jian Guo appeared to comply with applicable WPS(s) WPS-B-T-2332-TC-P4-F.

FCAW welding of fillet weld joint(s) located on Barrier Rails components identified as W2-SB9-069 weld number(s) 094, 098, 112, 114, and 126~131. Welder is identified as welder no.067447. The welding variables recorded by ZPMC QC identified as Mr. Shen Jian Guo appeared to comply with applicable WPS(s) WPS-B-T-2333-TC-P4-F.

FCAW welding of fillet weld joint(s) located on Barrier Rails components identified as W2-SB10-038 weld number(s) 094, 098, 112, 114, and 126~131. Welder is identified as welder no.053742. The welding variables recorded by ZPMC QC identified as Mr. Shen Jian Guo appeared to comply with applicable WPS(s) WPS-B-T-2333-TC-P4-F.

---

## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

### OBG BAY 8

During random in process inspection of Bike path assembly member identified as BK004A1-057-044 this QA observed 39 drilling holes through unwelded complete joint penetration weld joint(s) on corner diaphragm sub-assembly identified as (FB3246-X4253B). This QA marked the affected area and informed ZPMC Quality Control (QC) identified as Mr. Xu Hai Yang of this issue. Mr. Yang informed this QA that the drilled holes would be corrected in a manner compliant with the contract documents.

### OBG BAY 6

### HEAT STRAIGHTENING

This QA Inspector observed the following work in progress:

ZPMC personnel heat straightening Orthotropic Box Girder (OBG) member identified as Lift 14 Sub-Assembly DP3168B-001, weld joint(s) 098, 099, 103, 104, 106, 107, 109, 110, 112, 113, 115, 116, 123, 139, 137, 138, 139, and 140. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Li Jia was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report HSR1 (B)-433 dated 11-10-2010.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

As mentioned above between QA and QC concerning this project

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Jim Devy 150-002-6784, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	DeArmond,Robert	Quality Assurance Inspector
<b>Reviewed By:</b>	Riley,Ken	QA Reviewer

---